

## PREFACE

Modern technology has evolved from an initial period plagued by business and practical engineering problems, through a second era in which the inventors prevailed, to the present era of scientific programmed research. The nature of these first two periods is best exemplified by the work of individuals such as James Watt and Thomas A. Edison, respectively. It would be difficult to affiliate the present era with a single individual because the protagonists are teams of people working in institutions or laboratories. Working at the end of the second era, Guglielmo Marconi's inventions can be attributed to his individual work. Not only an inventor but also a great entrepreneur, he was motivated by a combination of technological curiosity and business interest. Today, technology operates in a way that makes the appearance of a new Marconi unlikely. The technologists on the San Francisco Peninsula or on Route 128 in Massachusetts are scientifically much more sophisticated than Marconi, but it is unlikely that they would accept a challenge such as his on an individual basis.

Marconi made a first class scientific discovery: the ionosphere. This discovery did not derive from any specific insight but from his utterly pragmatic attitude. His only aim was to transmit signals as far as possible.

The consequences of Marconi's inventions are far-reaching; it is not an exaggeration to say that they have deeply affected modern civilization. For this, Marconi's name is known to everybody as the symbol for telecommunications in all its forms. But what kind of man was he?

Marconi's life is extremely interesting, especially the early years. At times, it reads like fiction. Dr. Masini has been very successful in telling Marconi's story, demonstrating solid documentation of facts that must have required considerable research. Because of the strong feelings aroused by Marconi and the empty rhetoric with which he has been sometimes celebrated, especially in Italy, Masini's sympathetic and level-headed approach is especially commendable. It allows one to gain serious insight into Marconi's unusual family background, early development and complex personality.

I thoroughly enjoyed the book, although it left me curious about Marconi's way of working. Dr. Masini, who had the same interest, tells me that Marconi's original notebooks, if they ever existed, have unfortunately disappeared. Thus the primary source for this important period in the inventor's life is missing. Furthermore, Marconi was interested in Patent Applications, not scientific papers, and for this reason he was rather secretive about his procedures, a habit that has presented additional difficulties for anyone trying to reconstruct his way of methodology.

With the coming of the First World War, both Marconi's role in telecommunications and his lifestyle changed significantly. While we know it changed, we can only speculate why. Masini chose to give only the facts and not to guess at the reasons. Could it be that the refined scientific technology, which entered the field with the vacuum tube, was beyond Marconi's methods? Masini has chosen, in my opinion properly, to let the reader guess for himself. At times, Marconi's life creates the impression that we are reading the

biographies of two different people: an extraordinary technologist and businessman, and a passionate lady's man. But these two sides coexisted, with one occasionally overwhelming the other.

From well-known scientists and lawyers who had extensive contacts with Marconi, I had received contrasting impressions of the man. When I was a young assistant professor, I saw and heard Marconi give an official speech to a physics conference. Soon after, to my astonishment and completely by accident, I overheard a loud conversation at a railway station between the inventor and an intimate friend of his on most personal subjects. The coherent picture of the man presented in Masini's book has allowed me to put these various facts of Marconi's character in perspective.

The reader could hardly find a better introduction to Marconi's interesting personality and to the permanent value of his work than Masini's wonderful biography.

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Nobel Prize for Physics

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